

What Is Claimed Is:

1. A system for acquiring semiconductor process status information, comprising:

5 an equipment server for sending a start command according to a first protocol;

a computer system server connected to the equipment server for converting the start command from the first protocol to a second protocol and outputting the converted start command;

10 a protocol converter connected to the computer system server for converting the start command from the second protocol to a third protocol and outputting the converted command according to the third protocol;

15 an AD/DA module connected to the protocol converter for converting the start command from the third protocol to an analog signal and outputting the converted command;

20 an external sensor connected to the AD/DA module for acquiring semiconductor equipment status information as initiated by the start command;

25 wherein the AD/DA module converts the semiconductor process status information from the analog signal to the third protocol and outputs the converted information to the protocol converter; the protocol converter converts the semiconductor process status information from the third protocol to the second protocol and outputs the converted information to the computer system server; and the computer system server outputs the converted information to the equipment server.

2. The system as claimed in claim 1, wherein the status information comprises temperature, pressure, flow rate, consistency, rotational speed, voltage value, or electric current value.

5 3. The system as claimed in claim 1, wherein standard voltage value input of the semiconductor process status information are $\pm 15\text{mV}$, $\pm 50\text{mV}$, $\pm 100\text{mV}$, $\pm 150\text{mV}$, $\pm 500\text{mV}$, $\pm 1\text{V}$, $\pm 2.5\text{V}$, $\pm 5\text{V}$ or $\pm 10\text{V}$.

10 4. The system, as claimed in claim 1, wherein standard current input of the semiconductor equipment status information is $0\sim 20\text{mA}$ or $\pm 4\sim 20\text{mA}$.

15 5. The system as claimed in claim 1, wherein standard direct sensor input of the semiconductor equipment status information is thermocouple (J, K, T, E, R, S, B type) or RTD (Pt, Ni, Balco).

6. The system as claimed in claim 1, wherein standard digital input of the semiconductor equipment status information is high or low (0/1).

20 7. A system for acquiring semiconductor process status information, comprising:

an equipment server for outputting a start command according to a HSMS protocol;

25 a computer system server connected to the equipment server for converting the start command from the HSMS protocol to a RS232 protocol and outputting the converted command;

a protocol converter connected to the computer system server for converting the start command from the RS232

protocol to a RS485 protocol and outputting the converted command;

5 an AD/DA module connected to the protocol converter for converting the start command from the RS485 command to an analog signal and outputting the converted command;

an external sensor connected to the AD/DA module for acquiring semiconductor equipment status information as initiated by the start command;

10 wherein the AD/DA module converts the semiconductor process status information from the analog signal to the RS485 protocol and outputs the converted information to the protocol converter; the protocol converter converts the semiconductor process status information from the RS485 protocol to the RS232 protocol and outputs the converted information to the computer system server;
15 and the computer system server outputs the semiconductor process status information to the equipment server.

20 8. The system as claimed in claim 7, wherein the status information comprises temperature, pressure, flow rate, consistency, rotational speed, voltage value, or electric current value.

9. The system as claimed in claim 7, wherein standard
25 voltage value input of the status information is $\pm 15\text{mV}$, $\pm 50\text{mV}$, $\pm 100\text{mV}$, $\pm 150\text{mV}$, $\pm 500\text{mV}$, $\pm 1\text{V}$, $\pm 2.5\text{V}$, $\pm 5\text{V}$ or $\pm 10\text{V}$.

10. The system, as claimed in claim 7, wherein standard current input of the semiconductor equipment status information is $\pm 0\sim 20\text{mA}$ or $\pm 4\sim 20\text{mA}$.

11. The system as claimed in claim 7, wherein standard direct sensor input of the semiconductor equipment status information is thermocouple (J, K, T, E, R, S, B type) or RTD (Pt, Ni, Balco).

5 12. The system as claimed in claim 7, wherein standard digital input of the semiconductor equipment status information is high or low (0/1).

13. A method for acquiring semiconductor process status information, comprising the steps of:

10 a tool application program outputting a start command according to a first protocol;
 converting the start command from the first protocol to a second protocol and outputting the converted start command;
15 converting the start command from the second protocol to a third protocol and outputting the converted command according to the third protocol;
 converting the start command from the third protocol to an analog signal and outputting the converted command;
20 activation of an external sensor by the start command;
 acquiring semiconductor equipment status information from the external sensor;
 converting the semiconductor process status information to the third protocol and outputting the converted
25 information according to the third protocol;
 converting the semiconductor process status information from the third protocol to the second protocol and outputting the converted information according to the second protocol;

converting the semiconductor process status information
from the second protocol to the first protocol; and
outputting the semiconductor process status information to
an equipment server according to the first server.

5 14. The method as claimed in claim 13, wherein the first
protocol is HSMS protocol, the second protocol is RS232 protocol
and the third protocol is RS485 protocol.

15 15. The method as claimed in claim 13, wherein the status
information comprises temperature, pressure, flow rate,
10 consistency, rotational speed, voltage value, or electric
current value.

16. The method as claimed in claim 13, wherein standard
voltage value input of the status information is $\pm 15\text{mV}$, $\pm 50\text{mV}$,
 $\pm 100\text{mV}$, $\pm 150\text{mV}$, $\pm 500\text{mV}$, $\pm 1\text{V}$, $\pm 2.5\text{V}$, $\pm 5\text{V}$ or $\pm 10\text{V}$.

15 17. The method, as claimed in claim 13, wherein standard
current input of the semiconductor equipment status information
is $\pm 0\sim 20\text{mA}$ or $\pm 4\sim 20\text{mA}$.

18. The method as claimed in claim 13, wherein standard
direct sensor input of the semiconductor equipment status
20 information is thermocouple (J, K, T, E, R, S, B type) or RTD (Pt,
Ni, Balco).

19. The method as claimed in claim 13, wherein standard
digital input of the semiconductor equipment status information
is high or low (0/1).